

Work Order ID 74847-1

October-12-11 7:27:12 AM

74847

PRELIMINARY ISSUE
ZEN 11-652
Page 1

Item ID: D3552-23

Revision ID:

Item Name: Door Prop

Start Date: 10/12/11

Required Date: 10/14/11

Reference:

Start Qty: 40.00

Req'd Qty: 40.00

40

40

Accept

N900040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

Stop

NR2

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

Draw Nbr

Revision Nbr

D3552

G

0.00

100

100

Purchasing

Purchasing

PURCHASING

Memo

Issue P/O:

Purchase Part Number:

B6-190-475-070N

Supplier: I.S. Technologies

Certificate of conformity is required

0.00

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Packaging

Memo

Ensure certificate of conformity is attached

0.00

W 11-10-12

Packaging 11/14/11

Work Order ID 74847

October-12-11 7:27:12 AM

74847

Page 2

Item ID: D3552-23

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Door Prop

Start Date: 10/12/11 Start Qty: 40.00

40

Cust Item ID:

Required Date: 10/14/11 Req'd Qty: 40.00

40

Customer:

Reference:

Run Start ***NR1***

Approvals: Process Plan:

Date:

Tooling:

Date:

Stop ***NR2***

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC6- Inspect dimensions to drawing

0.00

- inspect by per Z

120

0.00

unreleased by

QC

Memo

Quality Control

Test for correct pressure

Sulcoley

130

Identify as per dwg & Stock Location: **272**

0.00

130

0.00

Packaging

Memo

Packaging

140

QC21- Final Inspection - Work Order Release

0.00

140

0.00

QC

Memo

Quality Control

Call only
11/10/14
ARC 11/10/21

11/10/14
POSITIVE RECALL
EFFECTIVE 11-10-14 AUTH
RELEASED DATE 11-10-21
ECN 11-652
ATTACHED EMAIL FROM 11-10-14
DAVIDS
V.P.14

Picklist Print

October-12-11 7:27:12 AM

Page 1

Work Order ID: 74847
Parent Item: D3552-23
Parent Item Name: Door Prop

Start Date: 10/12/11

Required Date: 10/14/11

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP Rev: A 11.04.07 new issue DD ver: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
B6-190-475-070N Door Prop		Purchased	No				Each	0.0000		40		10/10/11	60

POSITIVE RECALL

RECALL

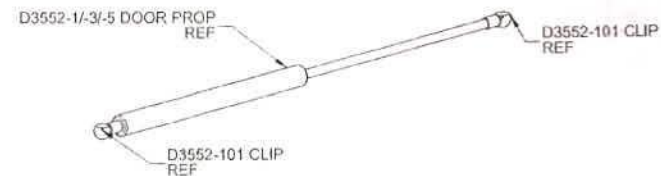
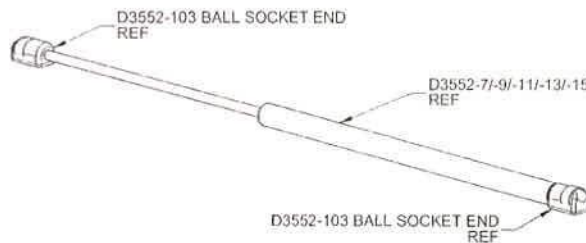
RELEASED

AUTH

DATE

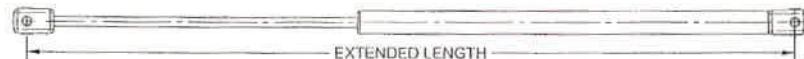
SPECIFICATION CONTROL DRAWING

PRELIMINARY ISSUE



I	ADD P/N D3552-23	RF	11.10.11
H	ADD P/N D3552-21	DC	11.03.10
G	FOR -15, FORCE: 300/67.4 WAS 400/89.9, SUPPLIER P/N B8-154-387-300N WAS B8-154-387-400N; FOR -17, STROKE: 139/5.47 WAS 160/6.30, EXT LG: 386/15.2 WAS 407/16.0 SUPPLIER P/N B8-154-387-156N WAS B8-167-408-156N	JPH	10.11.01
F	ADD P/N D3552-15/-17/-19 AND ALTERNATE SUPPLIER	JPH	10.07.27
E	ADD P/N D3552-13 ZN B8-1, A8-1, D6-1, CHANGE NAME FROM "GAS SPRING" TO "DOOR PROP" THROUGH OUT DWG	HS	10.02.03
D	ADD P/N D3552-101 ZN D6-1, C7-1, C1-1 AND D3552-103 ZN D1-1 AND C2-1 AND ZN B8-1; ADD NOTE REGARDING D3552-101 AND D3552-103 COMPATIBILITY ZN A8-1	HS	09.04.02
C	ADD D3552-11 AND CONVERSIONS FOR INSPECTION; UPDATE P/N FOR D3552-7	LE	07.06.01
B	ADD D3552-7/-9; UPDATE DESC. D3552-1/-3/-5	LE	06.10.24
A	NEW ISSUE	LE	06.09.15
REV.	DESCRIPTION		
DESIGN	LE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	[Signature]	DRAWING NO. D3552	REV. 1
MFG. APPR.	[Signature]	TITLE	SHEET 1 OF 2
APPROVED	[Signature]	DOOR PROP	SCALE NTS
DE APPR.		DATE 11.10.11	

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DART PART NUMBER	DESCRIPTION	STROKE (mm/in)	EXTENDED LENGTH (mm/in)	FORCE (N/lb)	END FITTING	MATERIAL	SUPPLIER	SUPPLIER PART NUMBER OR MODEL NUMBER	ALTERNATE SUPPLIER	ALTERNATE SUPPLIER P/N OR MODEL NUMBER
D3552-1	DOOR PROP	220/8.66	530/20.6	70/15.7	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-220-530-070N	N/A	N/A
D3552-3	DOOR PROP	200/7.87	490/19.3	200/45.0	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-200-490-200N	N/A	N/A
D3552-5	DOOR PROP	175/6.89	430/16.9	150/33.7	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-175-430-150N	N/A	N/A
D3552-7	DOOR PROP	220/8.66	530/20.9	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-220-530-070N	N/A	N/A
D3552-9	DOOR PROP	200/7.87	490/19.3	200/45.0	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-200-490-200N	N/A	N/A
D3552-11	DOOR PROP	240/9.45	575/22.6	150/33.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-240-575-150N	N/A	N/A
D3552-13	DOOR PROP	220/8.66	530/20.9	140/31.5	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B6-220-530-140N	N/A	N/A
D3552-15	DOOR PROP	139/5.47	386/15.2	300/67.4	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-300N	SUSPA, Inc.	16-2-210-139-A101-B101-400N
D3552-17	DOOR PROP	139/5.47	386/15.2	150/35.1	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-156N	SUSPA, Inc.	15-2-210-160-A101-B101-156N
D3552-19	DOOR PROP	139/5.47	386/15.2	60/13.5	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-060N	SUSPA, Inc.	15-2-210-139-A101-B101-060N
D3552-21	DOOR PROP	167/6.57	410/16.1	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B6-167-410-070N	N/A	N/A
D3552-23	DOOR PROP	190/7.48	475/18.7	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B6-190-475-070N	N/A	N/A
D3552-103	BALL SOCKET END	N/A	N/A	N/A	N/A	NYLON	LS TECHNOLOGIES	B10	N/A	N/A
D3552-101	CLIP	N/A	N/A	N/A	N/A	CARBON STEEL	LS TECHNOLOGIES	C9	N/A	N/A

D3552-X DOOR PROP

NOTES:

- 1) IDENTIFICATION: IDENTIFY PER QSI 044 6.2
- 2) D3552-101 CLIP IS ONLY COMPATIBLE WITH D3552-11/31-5 DOOR PROPS
- 3) D3552-103 BALL SOCKET END IS ONLY COMPATIBLE WITH D3552-7/9/11/13/15/17/19/21 DOOR PROPS

DESIGN	LE	DART AEROSPACE LTD	
DRAWN	RF	BARKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. 1
MFG. APPR.		D3552	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		DOOR PROP	NTS
DATE	11.10.11	COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PREPARED AND CONTROLLED BY THE DART AEROSPACE LTD AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT PERMISSION IN WRITING FROM DART AEROSPACE LTD	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO15135

Purchase Order Date 10/12/11

PO Print Date 10/12/11

Page Number 1 of 1

Order From :

VC-LST0001

LS TECHNOLOGIES INC.
303-103 STREET
SASKATOON, SK S7N 1Y9
CA

Contact Name

Vendor Phone

306 683 5000

Vendor Fax

306 683 6403

Vendor Account Nbr

Buyer

Linda Lacelle

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	B6-190-475-070N	Door Prop	10/14/11 Yes	40.00 Each	FedEx PI collect	\$31.5000	\$1,260.00

Special Inst: PER DRWG D3552

PO Total:

\$1,260.00

Change Nbr: 1

Change Date: 10/12/11

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

LS Technologies Canada Inc.

303 - 103 Street
Saskatoon, SK Canada
S7N 1Y9

Packing Slip

Date	Invoice #
13/10/2011	7803

Name / Address
Dart Aerospace Ltd 1270 Aberdeen St. Hawkesbury, ON K6A 1K7

Ship To
Main Finished Goods Location Dart Aerospace Ltd 1270 Aberdeen St. Hawkesbury, ON K6A 1K7

P.O. No.	Ship	Via	FOB	Project
PO15135	13/10/2011			

Qty	Description
10	B6-190-475-070N Gas Spring
1	Shipping Via FED EX Tracking #795290620078



303 - 103rd Street, Saskatoon, Saskatchewan, Canada S7N 1Y9
Ph: (306) 683-5000 Fax: (306) 683-6403

Certificate of Compliance

This is to certify that the parts listed below meets specifications as required by your order.

10 Units: B6-190-475-070N Carbon steel Gas Spring

*Sublot 4 * Rev 2 unaltered*

Country of Manufacture: Canada

Date of Manufacture : October 2011

This product is ROHS compliant.

We certify no mercury was used in the manufacture of this order.

Purchase Order # 15135

Invoice # 7803

L S Technologies Inc Canada

A handwritten signature in black ink, appearing to read "Mark Ingram", written over a horizontal line.

Mark Ingram
Manager

Marc Bellavance

From: David Shepherd <dshepherd@dartaero.com>
Sent: October 12, 2011 10:01 AM
To: 'Bill Beckett'
Cc: 'Mike Petsche'; 'RobertFuentes'; 'Linda Lacelle'; 'Marc Bellavance'; 'Sian Willems'
Subject: RE: 811TA Baggage doors

Follow Up Flag: Follow up
Flag Status: Completed

Yes ... Of course we will be issuing an ECN.

And yes ... we will need to retrofit the fleet and change out everything in stock, although I had asked Linda to hold off ordering the gas spring for these kits until we had this sorted out, so there shouldn't be much in stock. I believe she was ordering 40 x D3552-23 yesterday.

Working on finalizing the dwg and DSI that will accompany the gas springs.

David

From: Bill Beckett [mailto:bbeckett@dartaero.com]
Sent: October-12-11 6:02 AM
To: 'David Shepherd'
Cc: 'Mike Petsche'; 'RobertFuentes'; 'Linda Lacelle'; 'Marc Bellavance'; Sian Willems
Subject: RE: 811TA Baggage doors

David,
I assume this means that we need to provide a no-charge for all kits shipped, and change out everything in stock?
Will you be issuing an ECN?
Bill

From: Linda Lacelle [mailto:llacelle@dartaero.com]
Sent: October 12, 2011 6:58 AM
To: 'David Shepherd'; Marc Bellavance
Cc: 'Bill Beckett'; 'Mike Petsche'; 'RobertFuentes'
Subject: RE: 811TA Baggage doors

I assume we will have to enter a N/C for 4 x D3552-23 ?

LL

From: David Shepherd [mailto:dshepherd@dartaero.com]
Sent: October-11-11 5:35 PM
To: 'Hine, Chad'; 'Vaughn, Chuck'; 'Wyatt, John'
Cc: 'Bill Beckett'; 'Mike Petsche'; 'Linda Lacelle'; 'RobertFuentes'
Subject: RE: 811TA Baggage doors

OK ... Thanks for the feedback.
We will work on getting you 4 gas struts (-70N) to replace the previous gas struts that were included in your kits.

David

From: Hine, Chad [mailto:chine@erahelicopters.com]
Sent: October-07-11 9:58 AM
To: dshepherd@dartaero.com; Vaughn, Chuck; Wyatt, John
Cc: Bill Beckett; Mike Petsche; 'Linda Lacelle'; 'RobertFuentes'
Subject: RE: 811TA Baggage doors

David,
Received the other 2 struts and installed both B6190472100N and B619047570N.

The -70N works the best.

Chad Hine
Repair Station Hangar Supervisor
Era Helicopters LLC
(337) 312-2204- office
(337) 660-1899- cell

If you are not the intended recipient of this email please disregard and destroy email.

 Please consider the environment before printing this email

From: dshepherd@dartaero.com [mailto:dshepherd@dartaero.com]
Sent: Tuesday, October 04, 2011 3:12 PM
To: Hine, Chad; Vaughn, Chuck; Wyatt, John
Cc: Bill Beckett; Mike Petsche; 'Linda Lacelle'; 'RobertFuentes'
Subject: Re: 811TA Baggage doors

Chad,

Understood ... We will spec out a softer gas spring and send it to you shortly.

David

Sent from my BlackBerry device on the Rogers Wireless Network

From: "Hine, Chad" <chine@erahelicopters.com>
Date: Tue, 4 Oct 2011 14:55:33 -0500
To: David Shepherd<dshepherd@dartaero.com>; Vaughn, Chuck<cvaughn@erahelicopters.com>; Wyatt, John<JWyatt@erahelicopters.com>
Cc: 'Bill Beckett'<bbeckett@dartaero.com>; 'Mike Petsche'<mpetsche@dartaero.com>; 'Linda Lacelle'<llacelle@dartaero.com>; 'RobertFuentes'<rfuentes@dartaero.com>
Subject: RE: 811TA Baggage doors

David,
As requested, we flipped the ball stud and this does not solve the problem with the opening force of the door. In addition, this would not be ideal as it also seems to put the strut in somewhat of a bind at the ball end attaching to the door. See attached.

Chad

From: David Shepherd [mailto:dshepherd@dartaero.com]
Sent: Friday, September 30, 2011 3:20 PM
To: Vaughn, Chuck; Hine, Chad; Wyatt, John
Cc: 'Bill Beckett'; 'Mike Petsche'; 'Linda Lacelle'; 'Robert Fuentes'
Subject: RE: 811TA Baggage doors

Hi Chuck,

Just getting back to the office after being your way for a couple of days. Sorry for the slow response.

With respect to the door strut, one of the guys suggested we invert the ball stud on the door (so its on the bottom of the bracket instead of the top of the bracket) so that the cylinder is higher than the piston. Could you give that a quick try and see if it slows down the door strut at the end of its stroke. If not, we will try to get you a door strut with less load to try early next week.

With respect to the fuel protection plate, we will send one down with the new RH maintenance step that I promised you.

David

From: Vaughn, Chuck [mailto:cvaughn@erahelicopters.com]
Sent: September-30-11 1:42 PM
To: Hine, Chad; David Shepherd; Wyatt, John
Cc: 'Bill Beckett'; 'Mike Petsche'; 'Linda Lacelle'; 'Robert Fuentes'
Subject: RE: 811TA Baggage doors

David, any update on this doorstrut? Also will you be sending the 212 version of this plate to verify it matches the fuselage on the 139?

Thanks,
Chuck

From: Hine, Chad
Sent: Thursday, September 29, 2011 8:27 AM
To: David Shepherd; Wyatt, John; Vaughn, Chuck
Cc: 'Bill Beckett'; 'Mike Petsche'; 'Linda Lacelle'; 'Robert Fuentes'
Subject: RE: 811TA Baggage doors

David,
Do you need anything else from me on this? I am concerned because we have no order for this. Still need to have the opening pressure adjusted to slow that door down before hitting the stop and also will need another strut for the other side.

Thanks,
Chad

From: David Shepherd [mailto:dshepherd@dartaero.com]
Sent: Thursday, September 22, 2011 9:19 AM
To: Hine, Chad; Wyatt, John; Vaughn, Chuck
Cc: 'Bill Beckett'; 'Mike Petsche'; 'Linda Lacelle'; 'Robert Fuentes'
Subject: RE: 811TA Baggage doors

Chad/Chuck/John,

Will this aircraft still be in the hangar next week?

David

From: David Shepherd [mailto:dshepherd@dartaero.com]
Sent: September-19-11 4:21 PM
To: 'Hine, Chad'; 'Wyatt, John'; 'Vaughn, Chuck'
Cc: 'Bill Beckett'; 'Mike Petsche'; 'Linda Lacelle'; 'Robert Fuentes'
Subject: RE: 811TA Baggage doors

Chad,

Thanks for the quick feedback ... We will work on getting a custom gas spring ordered up and sent to you for trial ASAP.

David

From: Hine, Chad [mailto:chine@erahelicopters.com]
Sent: September-19-11 12:52 PM
To: David Shepherd; Wyatt, John; Vaughn, Chuck
Cc: 'Bill Beckett'; 'Mike Petsche'; 'Linda Lacelle'; 'Robert Fuentes'
Subject: RE: 811TA Baggage doors

We received the D3552-9, still too long. We need another $\frac{1}{4}$ " - $\frac{1}{2}$ " shorter.

From: David Shepherd [mailto:dshepherd@dartaero.com]
Sent: Thursday, September 15, 2011 4:04 PM
To: Hine, Chad; Wyatt, John; Vaughn, Chuck
Cc: Francois, Benny; 'Bill Beckett'; 'Mike Petsche'; 'Linda Lacelle'; 'Robert Fuentes'
Subject: RE: 811TA Baggage doors

Chad,

We have an existing gas strut in stock that is 1.6" shorter than the existing strut and is slightly stronger (45 lb vs 31 lb). Do you think this will work? Should we send you one to try?

Thanks,
David

From: David Shepherd [mailto:dshepherd@dartaero.com]
Sent: September-15-11 2:51 PM
To: 'Hine, Chad'; 'Wyatt, John'; 'Vaughn, Chuck'
Cc: 'Francois, Benny'; 'Bill Beckett'; 'Mike Petsche'; 'Linda Lacelle'; 'Robert Fuentes'
Subject: RE: 811TA Baggage doors

No ... it just distinguishes one gas strut from another We're hoping we have one in stock that will do the job ... Will let you know shortly.

David

From: Hine, Chad [<mailto:chine@erahelicopters.com>]
Sent: September-15-11 2:19 PM
To: David Shepherd; Wyatt, John; Vaughn, Chuck
Cc: Francois, Benny; 'Bill Beckett'; 'Mike Petsche'; 'Linda Lacelle'; 'Robert Fuentes'
Subject: RE: 811TA Baggage doors

Does the -013 distinguish the length? The -07's are used on the AS350 doors.

From: David Shepherd [<mailto:dshepherd@dartaero.com>]
Sent: Thursday, September 15, 2011 3:17 PM
To: Hine, Chad; Wyatt, John; Vaughn, Chuck
Cc: Francois, Benny; 'Bill Beckett'; 'Mike Petsche'; 'Linda Lacelle'; 'Robert Fuentes'
Subject: RE: 811TA Baggage doors

Chad,

Thanks for the info ... We will get this changed.

Roberto,

See below ... We will need to reduce the length of the gas strut used on D139-799-013 by 1.75". D3552-13 is used elsewhere so unfortunately, we will need to get a new part number for this.

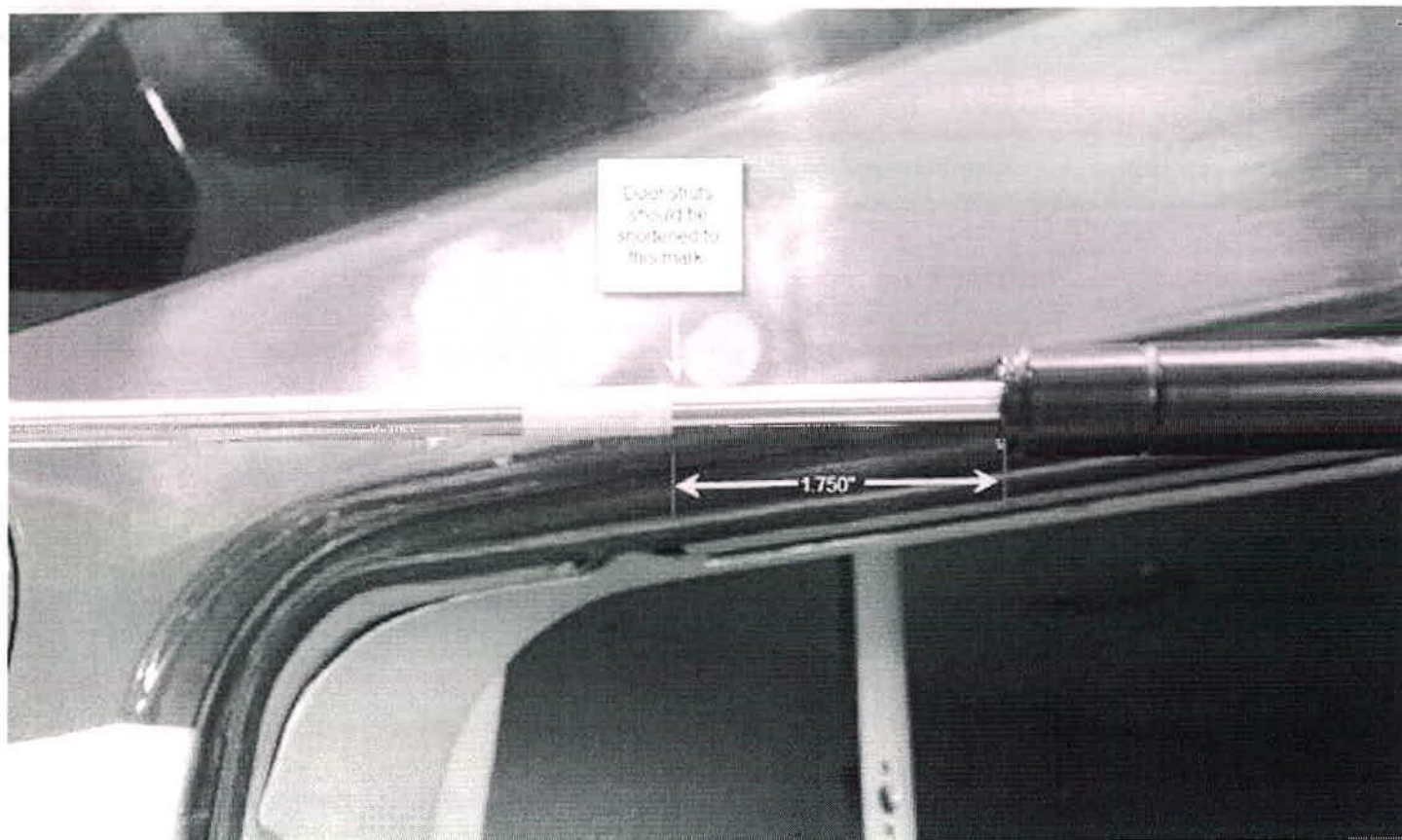
David

From: Hine, Chad [<mailto:chine@erahelicopters.com>]
Sent: September-15-11 12:47 PM
To: David Shepherd; Wyatt, John; Vaughn, Chuck
Cc: Francois, Benny; 'Bill Beckett'; Mike Petsche; 'Linda Lacelle'
Subject: RE: 811TA Baggage doors

David,

See photo below. We marked the strut where it needs to be to not hit the maintenance step if down, then closed the step and allowed the strut to extend all the way out. 1.750 inches shorter should take care of it.

Chad



-----Original Message-----

From: David Shepherd [mailto:dshepherd@dartaero.com]
Sent: Thursday, September 15, 2011 10:22 AM
To: Hine, Chad; Wyatt, John; Vaughn, Chuck
Cc: Francois, Benny; 'Bill Beckett'; Mike Petsche; 'Linda Lacelle'
Subject: RE: 811TA Baggage doors

Chad,

Thanks for the photos ... How much do we need to shorten the travel on the gas strut by so that the door doesn't hit the step?
I'm thinking we need to reduce by 1", but would appreciate if you could confirm.

Thanks,
David

-----Original Message-----

From: Hine, Chad [mailto:chine@erahelicopters.com]
Sent: September-15-11 6:42 AM
To: Wyatt, John; Vaughn, Chuck; dshepherd@dartaero.com
Cc: Francois, Benny
Subject: 811TA Baggage doors

David,
We will be shimming the door latch assemblies on both doors to relieve the

force required to latch and unlatch the locks. As a suggestion, Dart should add "shim as required" to the installation instructions after seal installation. AN960 washers under the screws attaching the latch assy to the door will do the trick. I am attaching a few other pictures showing the issue with the doors interfering with the maintenance steps. Actually, both LH and RH doors will hit the steps. In addition to this, the strut on the RH side, locks up sometimes not allowing the door to open further than 6 or 8 inches, so we will be replacing that strut.

Any questions, feel free to contact me.

Chad Hine
145 Repair Station Hangar Supervisor
Era Helicopters LLC
337-312-2204

----- Original Message -----

From: Vaughn, Chuck

Sent: Wednesday, September 14, 2011 06:53 PM

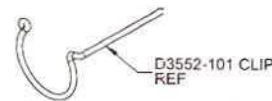
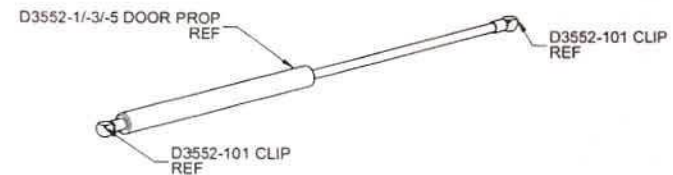
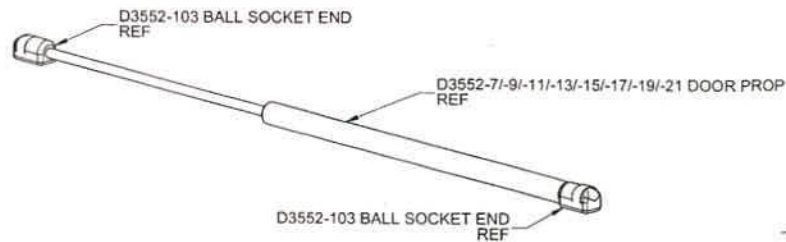
To: David Shepherd <dshepherd@dartaero.com>; Wyatt, John; Seabaugh, Jerrod

Subject: Baggage doors

Still need a final fine tuning as the latch mechanism's are in a pretty good bind making it hard to open. The strange part is the L/H door strut extends further then the R/H, which will allow the L/H door to hit the step if in the down position. Picture 14 is of the R/H door strut which extends to the correct length. I will be out tomorrow so John will be following up on this with you once he gets an update from his install crew.

Thanks,
Chuck

SPECIFICATION CONTROL DRAWING



RELEASED
2011-10-13

I	ADD P/N D3552-23	RF	11.10.11
H	ADD P/N D3552-21	DC	11.03.10
G	FOR -15, FORCE 300/87.4 WAS 400/89.9, SUPPLIER P/N B8-154-387-300N WAS B8-154-387-400N, FOR -17, STROKE 139/5.47 WAS 160/6.30, EXT LG 386/15.2 WAS 407/16.0, SUPPLIER P/N B8-154-387-156N WAS B8-167-408-156N	JPH	10.11.01
F	ADD P/N D3552-15/-17/-19 AND ALTERNATE SUPPLIER	JPH	10.07.27
E	ADD P/N D3552-13 ZN B8-1, A8-1, D6-1, CHANGE NAME FROM "GAS SPRING" TO "DOOR PROP" THROUGH OUT DWS	HS	10.02.03
D	ADD P/N D3552-101 ZN D6-1, C7-1, C1-1 AND D3552-103 ZN D1-1 AND C2-1 AND ZN B8-1; ADD NOTE REGARDING D3552-101 AND D3552-103 COMPATIBILITY ZN A8-1	HS	09.04.02
C	ADD D3552-11 AND CONVERSIONS FOR INSPECTION; UPDATE P/N FOR D3552-7	LE	07.06.01
B	ADD D3552-7/-9; UPDATE DESC. D3552-1/-3/-5	LE	08.10.24
A	NEW ISSUE	LE	06.09.15
REV.	DESCRIPTION	BY	DATE
DESIGN	LE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	JE	DRAWING NO.	REV. 1
MFG. APPR.	JE	D3552	SHEET 1 OF 2
APPROVED	JE	TITLE	SCALE
DE APPR.	JE	DOOR PROP	NTS
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DART PART NUMBER	DESCRIPTION	STROKE (mm/in)	EXTENDED LENGTH (mm/in)	FORCE (N/lb)	END FITTING	MATERIAL	SUPPLIER	SUPPLIER PART NUMBER OR MODEL NUMBER	ALTERNATE SUPPLIER	ALTERNATE SUPPLIER P/N OR MODEL NUMBER
D3552-1	DOOR PROP	220/8.66	530/20.6	70/15.7	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-220-530-070N	N/A	N/A
D3552-3	DOOR PROP	200/7.87	490/19.3	200/45.0	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-200-490-200N	N/A	N/A
D3552-5	DOOR PROP	175/6.89	430/16.9	150/33.7	10mm SS BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	C8-175-430-150N	N/A	N/A
D3552-7	DOOR PROP	220/8.66	530/20.9	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-220-530-070N	N/A	N/A
D3552-9	DOOR PROP	200/7.87	490/19.3	200/45.0	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-200-490-200N	N/A	N/A
D3552-11	DOOR PROP	240/9.45	575/22.6	150/33.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-240-575-150N	N/A	N/A
D3552-13	DOOR PROP	220/8.66	530/20.9	140/31.5	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B6-220-530-140N	N/A	N/A
D3552-15	DOOR PROP	139/5.47	386/15.2	300/67.4	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-300N	SUSPA, Inc.	16-2-210-139-A101-B101-400N
D3552-17	DOOR PROP	139/5.47	386/15.2	158/35.1	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-156N	SUSPA, Inc.	16-2-210-160-A101-B101-156N
D3552-19	DOOR PROP	139/5.47	386/15.2	60/13.5	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B8-154-387-060N	SUSPA, Inc.	16-2-210-139-A101-B101-060N
D3552-21	DOOR PROP	167/6.57	410/16.1	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B6-167-410-070N	N/A	N/A
D3552-23	DOOR PROP	190/7.48	475/18.7	70/15.7	10mm NYLON BALL SOCKET	CARBON STEEL	LS TECHNOLOGIES	B6-190-475-070N	N/A	N/A
D3552-103	BALL SOCKET END	N/A	N/A	N/A	N/A	NYLON	LS TECHNOLOGIES	B10	N/A	N/A
D3552-101	CLIP	N/A	N/A	N/A	N/A	CARBON STEEL	LS TECHNOLOGIES	C9	N/A	N/A

D3552-X DOOR PROP

RELEASED
2011-10-13
WNP

NOTES:

- IDENTIFICATION: IDENTIFY PER QSI 044 6.2
- D3552-101 CLIP IS ONLY COMPATIBLE WITH D3552-1/-3/-5 DOOR PROPS
- D3552-103 BALL SOCKET END IS ONLY COMPATIBLE WITH D3552-7/-9/-11/-13/-15/-17/-19/-21 DOOR PROPS

DESIGN	LE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	RF	DRAWING NO.	REV 1
MFG. APPR.	RF	D3552	SHEET 2 OF 2
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	DOOR PROP	NTS
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